

Remarks/Arguments

Claims 12-18 were pending in the application. Claims 12 and 13 had been withdrawn as non-elected claims resulting from a restriction requirement. Claims 14-18 were under Final Rejection.

Applicant's attorney wishes to express his gratitude for the telephone interview on Nov. 3, 2005, granted by the Examiner. The interview concluded with the Examiner's oral indication that upon submission of this present Response, the Final Rejection would be withdrawn and prosecution re-opened. This is to generally record and confirm, from the perspective of applicant's attorney, the content and disposition of that interview.

The Office Action of Oct. 18, 2005 made a final rejection of "new" claims 14-18, again under 35 USC 102(b) as "anticipated by the Breault patent reference". It also provisionally rejected claims 14 and 16-18 under the judicially created doctrine of obviousness-type double patenting. During the interview, Applicant's attorney noted that in the "Response to Arguments" section of the Office Action (page 2), particularly in lines 5 and 6 of paragraph "2", the Examiner indicates that the "device used for humidifying" in the Breault reference "is most definitely located in the coolant loop between the heat removal means and the fuel cell stack . . .". It was pointed out that while that is an accurate statement, it does not address the important fact that independent claim 14 requires "a humidifier (70) operatively connected in the coolant loop (114) between the heat removal means (152, 156) and the fuel cell stack assembly coolant region inlet (48) and operatively connected in the inlet oxidant stream (134, 134')". This is a precise location of the humidifier in the coolant loop downstream of the heat removal means and prior to the fuel cell stack assembly coolant region inlet.

As further explained in Applicant's Amendment of 8/15/05 and during the interview, it is this location of the humidifier that enables the desired result of a reduction in the size of the heat removal means (fan/radiator). This particular location of the humidifier in the coolant loop affords the benefits previously described in detail in the application (particularly page 13, line 15 to page 15, line 8) and recited in the claims in functional language. Relative to similar prior systems without the present invention, it is desirable to have a higher grade heat appearing at the inlet to the heat removal means (e.

g., fan and radiator), yet it is also desirable to maintain the lower temperature of the coolant as it enters the fuel cell stack assembly. The advantages of such a heat distribution arrangement are clearly described in the application and include the possibility of using a “smaller”, “less expensive” heat removal means. However, to accomplish that heat distribution, it is necessary that the humidifier be located in the coolant loop downstream of the heat removal means but upstream of the coolant inlet to the fuel cell stack assembly.

By contrast, the device 68 of the Breault patent, cited by the Examiner as being analogous to applicant’s humidifier, is indeed located in the inlet oxidant stream but is clearly not located downstream of the heat removal means 55 in the coolant loop of Breault. For this reason, the configuration of Breault is simply not able to effect the desired distribution of heat in that system that would enable the relative reduction in the capacity of his fan/radiator 55 that is attained in the present application.

During the interview, the Examiner called attention to the language in column 15, lines 32-38 of the Breault patent as a purported teaching of placing the humidifier downstream of the heat removal means in the coolant loop. Such assertion was/is firmly rejected by Applicant because no such teaching really exists. The language cited by the Examiner says “ Further, Fig. 1 shows schematically a direct mass and heat transfer device 68 securing one interdigitated enthalpy device 12 between process oxidant and plant exhaust streams. The invention, however, also includes a plurality of the devices 12 secured in a manner to efficiently transfer necessary water and heat from the plant exhaust to the process oxidant stream, depending upon operational requirements of the plant 10”. The emphasis in Breault seems to be more on the possible use of a plurality of humidifiers, and certainly contains no teaching or suggestion (absent the teaching of the specification in the present application) of locating a humidifier where presently claimed and for the stated purpose.

Indeed, although the Examiner referred to *In re Japikse* 86 USPQ 70 (CCPA 1950) in the Office Action for support of the provisional double patenting rejection by suggesting that simple rearrangement of parts may be found to be an “obvious modification”, Applicant specifically rejects such applicability with respect to either a prospective 103 obviousness rejection or the provisional double patenting rejection. The Japikse case

found that the position of a starting switch was unpatentable over prior art because shifting of the position would not have modified the operation of the device. Conversely, in *Ex parte Chicago Rawhide Mfg. Co*, 223 USPQ 351 (Bd. Pat. App. & Inter. 1984), it was held that the mere fact that a worker in the art could rearrange the parts of the reference device to meet the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device". It is clear from the explanation above and the comments contained in the Amendment of 8/15/05, that there simply is no teaching in Breault or the other references cited herein of locating a humidifier at the claimed location in the coolant loop, nor of the benefits that derive by doing so.

It is respectfully submitted that the foregoing comments not only address deficiencies in the rejection of the claims under 35 USC 102 or 103, but also with respect to the provisional double patenting rejection. As Applicant noted in the Amendment of 8/15/05, claim 14 requires a "heat removal means" in the coolant loop and it further requires a humidifier positioned in the coolant loop between the heat removal means and the coolant inlet to the fuel cell stack assembly. Clearly the scope of that claim does not necessarily "fully encompass" the scope of the claims in 10/723,200. Those latter claims do not necessarily require "a humidifier downstream of a heat removal means, both of which are in a coolant loop", which, in effect, is what is required by claim 14. Applicant respectfully submits that the provisional obviousness-type double patenting rejection is not based on claims (claim 14) of a scope in the present application which necessarily fully encompass the scope of the claims (e. g., claims 1 and 13) of the 10/723,200 application, and accordingly should be withdrawn. As noted above, the Examiner's assertion in the Office Action of 8/15/05 that "even if there are parts located in different areas of one application versus another application, this has also been found to be an obvious modification (see *In re Japikse*)", is deficient in the absence of a motivation or teaching provided by other than the present application, particularly in view of the advantages which obtain as a result of the claimed invention. Further, no claim in the 10/723,200 application has been allowed at this time.

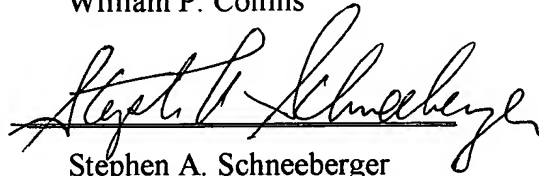
Applicant is prepared to file a terminal disclaimer, but only if and when it is convincingly shown to be necessary, which is not believed to be the case at this time.

In view of the foregoing comments, applicant respectfully requests that this Response be entered and favorably considered, that the Final Rejection be withdrawn and prosecution reopened, and that an indication of allowance be granted. This Response under 37 CFR 116 is believed to be timely in view of the facts recited above. In the event issues remain and the Examiner feels the prosecution might be advanced by further discussion, the Examiner is respectfully requested to contact applicant's attorney at the number below.

Respectfully submitted,

William P. Collins

By:

A handwritten signature in dark ink, appearing to read "Stephen A. Schneeberger", is written over a horizontal line.

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